

WHAT IS CLAIMED IS

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1. A tracking control method comprising the steps of:

(a) measuring an optimum offset by measuring a light beam irradiation state of a light beam while
10 offsetting a tracking target position of the light beam on a recording medium so that an optimum light beam irradiation state is obtained at the tracking target position; and

(b) carrying out a tracking control by setting
15 the optimum offset measured by said step (a).

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2. The tracking control method as claimed in claim 1, further comprising the step of:

(c) judging a type of the recording medium,
said step (a) being carried out when said step
(c) judges that the recording medium is a high-
25 density recording medium.

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3. The tracking control method as claimed in claim 1, wherein said step (a) detects the light beam irradiation state based on one parameter selected from a group consisting of a read error, a reproduced signal amplitude and an amount of focus
35 control.

4. The tracking control method as claimed in claim 1, wherein said step (a) is carried out in a state where a waveform interference from an adjacent track is easily generated.

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5. The tracking control method as claimed in claim 1, wherein said step (a) is carried out for every predetermined radial position on the recording medium and/or for every one revolution angle of the recording medium.

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6. The tracking control method as claimed in claim 1, wherein said step (a) is carried out when a difference between previous and present measurement execution times is greater than or equal to a prescribed time and/or when a temperature difference between previous and present measurements is greater than or equal to a prescribed temperature.

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7. The tracking control method as claimed in claim 1, further comprising:

(c) carrying out a reproducing process again by changing the optimum offset of the tracking target position in a positive or negative direction, when an error is generated during a reproducing process with respect to the recording medium.

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8. The tracking control method as claimed
in claim 7, wherein said step (c) changes the
optimum offset of the tracking target position in
the positive or negative direction depending on a
5 success rate of the reproducing process which is
carried out again.

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9. The tracking control method as claimed
in claim 1, further comprising the step of:

(c) setting an optimum offset depending on at
least one of an object of a seek process and a
15 target address on the recording medium.

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10. A storage apparatus comprising:

offset measurement control means for measuring
an optimum offset by measuring a light beam
irradiation state of a light beam while offsetting a
tracking target position of the light beam on a
25 recording medium so that an optimum light beam
irradiation state is obtained at the tracking target
position; and

tracking control means for carrying out a
tracking control by setting the optimum offset which
30 is updated.

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11. The storage apparatus as claimed in
claim 10, further comprising:

judging means for judging a type of the

recording medium,

said offset measurement control means measuring the optimum offset when said step judging means judges that the recording medium is a high-density recording medium.

10 12. A storage apparatus comprising:
a measuring section which measures an optimum offset by measuring a light beam irradiation state of a light beam while offsetting a tracking target position of the light beam on a recording medium so
15 that an optimum light beam irradiation state is obtained at the tracking target position; and
a control section which carries out a tracking control by setting the optimum offset measured by said measuring means.

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25 13. The storage apparatus as claimed in claim 12, further comprising:
a judging section which judges a type of the recording medium,
said measuring section measuring the optimum offset when said judging section judges that the
30 recording medium is a high-density recording medium.

35 14. The storage apparatus as claimed in claim 12, wherein said measuring section detects the light beam irradiation state based on one parameter

selected from a group consisting of a read error, a reproduced signal amplitude and an amount of focus control.

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15. The storage apparatus as claimed in claim 12, wherein said measuring section measures the optimum offset in a state where a waveform interference from an adjacent track is easily generated.

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16. The storage apparatus as claimed in claim 12, wherein said measuring section measures the optimum offset for every predetermined radial position on the recording medium and/or for every one revolution angle of the recording medium.

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17. The storage apparatus as claimed in claim 12, wherein said measuring section measures the optimum offset when a difference between previous and present measurement execution times is greater than or equal to a prescribed time and/or when a temperature difference between previous and present measurements is greater than or equal to a prescribed temperature.

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18. The storage apparatus as claimed in claim 12, further comprising:

5 a reproducing section which carries out a reproducing process again by changing the optimum offset of the tracking target position in a positive or negative direction, when an error is generated during a reproducing process with respect to the recording medium.

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19. The storage apparatus as claimed in claim 18, wherein said reproducing section changes
15 the optimum offset of the tracking target position in the positive or negative direction depending on a success rate of the reproducing process which is carried out again.

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20. The storage apparatus as claimed in claim 12, further comprising:
25 a setting section which sets an optimum offset depending on at least one of an object of a seek process and a target address on the recording medium.

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